

Appendix C: RONS and MMS Lists

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Refuge Operation Needs System List (RONS)

Maintenance Management System (MMS)

RONS Project Cost Summary – Refuge Project Priorities

The projects are prioritized into three categories based on the likelihood and potential impact of the project.

"A" Priority Projects

RONS Project No.	Strategy No.	Project Description	First Year Need	Recurring Annual Need
99005	1.11.1 and 2.5.2	Hire a full-time biology technician to monitor habitat	\$114,000	\$49,000
00001/00002	1.3.1 and 1.3.2	Improve Green Tree Reservoirs	\$3,100,000	–
98005	1.5.1	Purchase 3-yard wheeled loader	\$111,000	\$6,000
98004	1.5.1	Purchase a trailer to haul heavy equipment	\$164,000	\$4,000
00013	2.3.1, 2.3.2,	Fund study of Refuge fish productivity and 2.3.3 and recruitment	\$174,000	\$49,000
00010	3.2.1	Cass River, Woodland Trail, Green Point ELC, and Spaulding Drain bank fishing sites	\$264,000	\$16,000
97018	3.3.1	Auto tour route	\$170,000	\$10,000
00014	3.4.2, 3.5.2 and 3.6.1	Hire a refuge receptionist	\$100,000	\$42,000
98006	3.6.4	Expand curriculum	\$22,000	–
98002	5.3.1	Add and support one full-time Refuge officer	\$123,000	\$58,000
98001	5.3.3	Purchase a vehicle and construct a storage facility for LE-related equipment	\$118,000	\$3,000
00011	5.4.1	Purchase water treatment system for maintenance facility	\$6,000	\$1,000

RONS Project No.	Strategy No.	Project Description	First Year Need	Recurring Annual Need
<u>"B" Priority Projects</u>				
97017	1.3.2 and 1.4.1	Convert Deutz Engine into a trailer-mounted pump	\$24,000	\$2,000
97023	1.5.1, 1.7.2, 1.7.3	Purchase mulcher, mowers and seed drill	\$78,000	\$5,000
97017	1.5.1 and 1.5.2	Improve moist soil management capabilities	\$27,000	\$2,000
00015	1.5.4 and 1.7.1	Add one permanent seasonal tractoroperator for trail and habitat maintenance	\$55,000	\$22,000
97017	1.6.2	Enhance emergent marsh management	\$22,000	\$2,000
00022	1.9.1	Conversion of wet farmlands to wetland habitats	\$70,000	–
00018	3.2.3	Construct a boat landing and fishing access on the Tittabawassee River in Thomas Township	\$200,000	–
00007	3.3.2	Expand trails	\$95,000	\$5,000
97003	3.4.3, 3.4.4	Addition of two Park Rangers	\$257,000	\$127,000
00023	3.4.5	Internship program	\$100,000	\$42,000
00008	3.4.7	Reestablish environmental education site	\$55,000	\$5,000
00009	6.1.1	Additional Private Lands biologist	\$133,000	\$68,000
00005	7.1.1	Complete legal surveys and boundary posting of easements	\$200,000	–

RONS Project No.	Strategy No.	Project Description	First Year Need	Recurring Annual Need
<u>"C" Priority Projects</u>				
00019	1.1.1	Reforestation of large, unfragmented blocks	\$350,000	–
00020	1.2.1 and 1.2.2	Development of multilayer forest	\$100,000	–
00017	1.5.2	Subdivide MSU 1 into two units	\$70,000	–
00016	1.7.4	Purchase a no-till grass drill to restore grasslands	\$20,000	\$2,000
00021	1.8.1	Manage croplands	\$20,000	–
00004	3.5.1	Purchase an environmental education vehicle	\$30,000	–
97021	4.1.2	Purchase and operate a travelers' information radio station	\$24,000	\$2,000
97022	4.1.6	Produce video on Great Lakes Ecosystem	\$22,000	–
00003	5.2.1	Archaeological survey of Refuge land	\$100,000	–

Maintenance Management System (MMS) List

Project Number	Project Description	Cost	Planned Funding Year
90111	Rehabilitate severely eroded Misteguay dike. The present dike has deteriorated to a point that it could wash out in the next major flood event. If this happens, both Refuge and private farmlands will be impacted by flood debris and siltation. (Title V LWCF)	\$262,500	1999
00164	Replace worn-out 1970 Dodge stake bed truck. The truck has high mileage (100,300). It is no longer reliable and constantly breaks down, requiring extensive repairs. The truck is used in maintenance activities such as hauling materials and equipment.	\$65,000	1999
00165	Replace deteriorated culvert and screw gate. The culvert is rusted through in some areas and the gate no longer operates smoothly. Total replacement of both items is required. The structure was installed in 1971 and has far exceeded its life expectancy. The structure is needed to manage water levels in Pool 2 for habitat control.	\$18,000	1999
99000	Base Maintenance – This funding is used for routine maintenance of equipment and facilities.	\$100,000	2000
97165	Replace high-mileage 1986 Chevrolet 4x4 pickup. The vehicle has more than 75,000 miles and the body is in poor, rusted condition. The vehicle is needed to perform for public and habitat management needs. Costs verified with GSA average cost for this vehicle type.	\$27,000	2000
96007	Replace worn-out radios. Regional Radio Coordinator is developing system diagrams for transition to Federal Land Mobile Radio Standard narrow-band equipment. Functional communications equipment is essential to employee safety.	\$21,600	2001

Project Number	Project Description	Cost	Planned Funding Year
90115	Replace deteriorated Bartel Road pump station 1. The pump station is needed to manage water levels for habitat manipulation in several impoundments. These impoundments are critical resting and feeding areas for migratory birds along the Shiawassee River.	\$34,650	2001
90113	Rehabilitate eroded Spaulding drain ditch slopes on the west side. The ditch embankment is being washed out each year by flood waters. This ditch embankment protects the Refuge pool habitat from silt-laden upstream flood waters.	\$450,000	2001
97171	Repair eroded dikes on Pool 1B. Extensive erosion on the dikes is threatening water management capabilities. Interior slopes need to be repaired and reshaped, and erosion protection installed. This pool adjacent to the Shiawassee River is critical habitat for migratory birds.	\$475,000	2001
96005	Clean out silted Trinklein Unit drainage ditches. Silt laded flood waters have deposited materials in the Trinklein ditch. This has severely impacted the ability to provide adequate drainage. This project will require hiring a contractor to remove the silt material from within the ditch and depositing it on the embankment slopes adjacent the ditch. Drainage is vital to the water management of the Refuge to maintain habitat and to provide consistent water levels for migrating birds.	\$100,000	2002
99311	Resurface deteriorated public use parking areas and access roads. These gravel parking lots and roads have a lot of use and are deteriorated due to heavy traffic during wet conditions. The lots need to be regraded and regraveled.	\$90,000	2002

Project Number	Project Description	Cost	Planned Funding Year
90103	Repair erosion on Pools 1a/1b cross dikes. High water has caused erosion on the dike slopes. The dikes need to be reshaped and fill installed in eroded areas. Slope protection will also be installed. The dikes are needed to allow separate water level management of the pools.	\$105,000	2003
97162	Replace worn-out 1992 Dodge 4x4 truck. The truck has exceeded the 60,000-mile replacement standard. The vehicle is used for the wetland restoration program and has more than 100,000 miles on it. The vehicle travels all over the State of Michigan. Costs verified with GSA average cost for this vehicle type.	\$27,000	2003
94239	Replace worn-out International tractor. The present tractor is becoming harder to repair because of age and the ability to locate replacement parts. Replacement is recommended. The tractor is used for habitat restoration and maintenance.	\$42,000	2004
92201	Repair deteriorated trails and boardwalks at Green Point ELC. Work involves replacing surface boards at Green Point, applying stone to wet areas, clearing trees and brush and providing benches and signs. The public use this area within the city limits of Saginaw.	\$30,000	2004
99436	Replace worn-out 1992 Chevrolet Blazer 4x4 truck. This truck is used extensively for law enforcement.	\$30,000	2005
97164	Replace worn-out 1991 Chevrolet Astro van. The vehicle has exceeded the 60,000-mile replacement standard. The van is needed for the public use and volunteer programs. Vehicle cost verified with GSA average vehicle costs.	\$33,000	2005

Project Number	Project Description	Cost	Planned Funding Year
99437	Replace worn-out Dodge D150 pick-up truck. Truck is used extensively for maintenance and the station's biological programs.	\$25,000	2005
99435	Replace worn-out 1977 Dodge pickup truck. The vehicle is used extensively by the station's public use specialist at Green Point ELC.	\$25,000	2005
99434	Replace worn-out 1989 Dodge Ram pickup truck. This vehicle is used extensively for maintenance projects, for public use, and wetland management.	\$25,000	2005
90108	Rehabilitate deteriorated roads, including the Ferguson Bayou nature trail, Evon Road, Houlihan Road, and Spaulding Drain Road. Driving surfaces need to be regraded and regravelled.	\$200,000	2005
94238	Mower is used for dike and trail maintenance. The mower deck is needed to keep trails in a usable condition. This involves the removal of unwanted tree and brush.	\$18,000	2005
99433	Replace 1979 dump truck. The truck is used to move heavy equipment and to haul materials to maintenance and construction sites.	\$90,000	2005
90106	Repair and resurface the employee parking area. The parking area is badly eroded and has a drainage problem.	\$60,585	
97170	Replace non-compliant oil storage building at the maintenance shop. The building does not meet federal and state standards for oil storage. A re-placement building is needed.	\$7,000	
90116	Replace deteriorated culverts at various locations. The culverts are needed to move water through the Refuge and under roadways to prevent overtopping and erosion. This will protect structures and habitat.	\$48,405	

Project Number	Project Description	Cost	Planned Funding Year
90105	Repair erosion on Pool 4 dikes. The dikes are needed to provide water level management. Water management is needed to control woody vegetation and to enhance desirable habitat.	\$309,750	
90119	Rehabilitate Houlihan Road farm drainage pump 1. The pump is needed to drain flood waters from agricultural fields. These fields provide a valuable food source for migrating birds and resident species.	\$24,150	
92202	Replace worn-out Dodge W250 4x4 fire truck. The truck is used for fire suppression activities and on prescribed burns.	\$34,650	
94237	Repair deficiencies at the maintenance shop. Repair small items which, if left unattended, will cause bigger problems in the future. Roof replacement is the largest component of this project.	\$30,000	
95429	Replace deteriorated storage building. The building is needed to store heavy equipment and materials indoors, secure from vandals and the weather.	\$63,000	
97167	Replace worn-out Case 580C backhoe. The present backhoe is getting beyond repair because of its age and condition.	\$73,500	
90102	Rehabilitate Hart Marsh dikes. Repairs to the dikes are needed to allow continued management of the marsh. Water management is needed to control woody vegetation and to enhance desirable habitat.	\$309,750	
90117	Replace deteriorated pump station in the Trinklein Unit. The pump station is needed to manage water levels for habitat management. This unit is an important resource along the Shiawassee River.	\$54,495	

Project Number	Project Description	Cost	Planned Funding Year
90118	Repair worn-out moist soil pump station 2. The pump station is needed to manage water levels for habitat management. This area along the Shiawassee River is heavily used by migratory birds.	\$60,585	
92195	Replace worn-out 16-ton flat bed trailer. Loading ramps and electric breaks do not function properly. The trailer is needed to transport heavy equipment to various areas on the Refuge for maintenance projects.	\$48,405	
92197	Replace worn-out JD440 tractor. The tractor is used for maintaining moist soil units and mowing trails and roadways.	\$98,175	
90120	Repair Houlihan Road farm drainage pump 2. The pump is needed to drain flood waters from agricultural fields. These fields provide a valuable food resource for migrating birds and resident species.	\$24,150	
97163	Repair eroded Pool 2 dike. Work will include embankment material, reshaping, and slope protection. The Pool 2 dike is needed to allow water management of a shallow pool that provides sanctuary for migratory birds along the Shiawassee River.	\$147,830	